# 2009 Annual Drinking Water Quality Report

(Consumer Confidence Report)

CITY OF MINERAL WELLS

Phone No. (940) 328-7777

## Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromsied persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

### **Public Participation Opportunities**

Date: NONE SCHEDULED

Time: Location:

**Phone No.:** (940) 328-7777

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

## Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements.

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the reverse side of this page. We hope this information helps you become more knowledgeable about what's in your drinking water.

WATER SOURCES: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

#### En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (940) 328-7865 para hablar con una persona bilingüe en español.

## Where do we get our drinking water?

Our drinking water is obtained from SURFACE water sources. It comes from the following Lake/River/Reservoir/Aquifer: Lake Palo Pinto, Palo Pinto Creek, and Hilltop Presedimentation Reservoir. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. For more information on source water assessments and protection efforts at our system, please contact us.

#### ALL drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800) 426-4791.

#### **Secondary Constituents**

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly effect the appearance and taste of your water.

### About the information listed in this report

The information listed in this report is all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

#### **DEFINITIONS**

#### **Maximum Contaminant Level (MCL)**

The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology

#### **Maximum Contaminant Level Goal (MCLG)**

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

## Maximum Residual Disinfectant Level (MRDL)

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

## Maximum Residual Disinfectant Level Goal (MRDLG)

The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectant to control microbial contamination.

## Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water

## Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## ABBREVIATIONS

NTU - Nephelometric Turbidity Units

MFL - million fibers per liter (a measure of asbestos)

pCi/L - picocuries per liter (a measure of radioactivity)

ppm -  $\,\,\,\,\,\,\,$  parts per million, or milligrams per liter (mg/L)

ppb - parts per billion, or micrograms per liter (ug/L)

ppt - parts per trillion, or nanograms per liter

ppq - parts per quadrillion, or picograms per liter

#### INORGANIC CONTAMINANTS

| Year or<br>Range | Contaminant         | Average<br>Level | Minimum<br>Level | Maximum<br>Level | MCL | MCLG | Unit of<br>Measure | Source of Contaminant  |
|------------------|---------------------|------------------|------------------|------------------|-----|------|--------------------|--|
| 2009             | Fluoride            | 0.52             | 0.52             | 0.52             | 4   | 4    | ppm                | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2005             | Gross beta emitters | 5.8              | 5.8              | 5.8              | 50  | 0    | pCi/L              | Decay of natural and man-made deposits.  |

#### ORGANIC CONTAMINANTS

TESTING WAIVED, NOT REQUIRED, OR NONE DETECTED

#### MAXIMUM RESIDUAL DISINFECTANT LEVEL

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

| minimum, maximum | and average levels. |                  |                  |                  |      |       |                    |  |
|------------------|---------------------|------------------|------------------|------------------|------|-------|--------------------|--|
| Year             | Disinfectant        | Average<br>Level | Minimum<br>Level | Maximum<br>Level | MRDL | MRDLG | Unit of<br>Measure | Source of Contaminant                  |
| 2009             | Chloramine          | 3.17             | 1.5              | 3.8              | 4.0  | <4.0  | ppb                | Disinfectant used to control microbes. |

## **DISINFECTION BYPRODUCTS**

| Year | Contaminant            | Average<br>Level | Minimum<br>Level | Maximum<br>Level | MCL | Unit of<br>Measure | Source of Contaminant                     |
|------|------------------------|------------------|------------------|------------------|-----|--------------------|---|
| 2009 | Total Haloacetic Acids | 24.2             | 16.1             | 28.2             | 60  | ppb                | Byproduct of drinking water disinfection. |
| 2009 | Total Trihalomethanes  | 49.4             | 27.1             | 62.4             | 80  | ppb                | Byproduct of drinking water disinfection. |

## UNREGULATED INITIAL DISTRIBUTION SYSTEM EVALUATION FOR DISINFECTION BYPRODUCTS

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

| Year | Contaminant            | Average<br>Level | Minimum<br>Level | Maximum<br>Level | MCL | Unit of<br>Measure | Source of Contaminant                     |
|------|------------------------|------------------|------------------|------------------|-----|--------------------|---|
| 2008 | Total Haloacetic Acids | 19.7             | 2.7              | 34.9             | N/A | ppb                | Byproduct of drinking water disinfection. |
| 2008 | Total Trihalomethanes  | 45.3             | 30.7             | 71.3             | N/A | ppb                | Byproduct of drinking water disinfection. |

## UNREGULATED CONTAMINANTS

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

| distribution.    |                      |                  |                  |                  |                    |   |
|------------------|----------------------|------------------|------------------|------------------|--------------------|---|
| Year or<br>Range | Contaminant          | Average<br>Level | Minimum<br>Level | Maximum<br>Level | Unit of<br>Measure | Source of Contaminant                     |
| 2009             | Chloroform           | 3.89             | 3.89             | 3.89             | ppb                | Byproduct of drinking water disinfection. |
| 2009             | Bromoform            | 20.51            | 20.51            | 20.51            | ppb                | Byproduct of drinking water disinfection. |
| 2009             | Bromodichloromethane | 16.08            | 16.08            | 16.08            | ppb                | Byproduct of drinking water disinfection. |
| 2009             | Dibromochloromethane | 30.89            | 30.89            | 30.89            | ppb                | Byproduct of drinking water disinfection. |

## UNREGULATED CONTAMINANT MONITORING RULE 2 (UCMR2)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data, visit http://www.epa.gov/safewater/ucmr/ucmr2/index.html, or call the Safe Drinking Water Hotline at (800) 426-4791.

| Year | Contaminant                                   | Average<br>Level | Minimum<br>Level | Maximum<br>Level | Unit of<br>Measure | Source of Contaminant   |
|------|---|------------------|------------------|------------------|--------------------|---|
| 2009 | Dimethoate                                    | <0.71            | <0.71            | <0.71            | ppb                | Insecticide used on cotton and other field crops, orchard crops, vegetable crops, in forestry, and for residential uses.  |
| 2009 | Terbufos Sulfone                              | < 0.41           | < 0.41           | <0.41            | ppb                | Degradate of the parent compound, terbufos; terbufos used for systemic control of soil-borne insects and nematodes in fields of corn, corn grain sorghum, and sugar beets.  |
| 2009 | Tetrabromodiphenyl ether (BDE-47)             | <030             | <030             | <030             | ppb                | Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)  |
| 2009 | Pentabromodiphenyl ether (BDE-100)            | <0.51            | < 0.51           | <0.51            | ppb                | Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)  |
| 2009 | Pentabromodiphenyl ether (BDE-99)             | < 0.91           | < 0.91           | < 0.91           | ppb                | Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)  |
| 2009 | Hexabromodiphenyl<br>(BDE-153)                | < 0.71           | < 0.71           | < 0.71           | ppb                | Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)  |
| 2009 | Hexabromodiphenyl<br>(HBB-245)                | < 0.81           | < 0.81           | < 0.81           | ppb                | Flame retardant additive; production of polybrominated biphenyls ended in 1976 in U.S. after an incident of significant accidental argricultural contamination in 1973.   |
| 2009 | Dinitrobenzene                                | < 0.82           | < 0.82           | < 0.82           | ppb                | Used in explosives; also formed as a by-product during the manufacture of the explosive TNT; used in the manufacture of aramid fibers, spandex, and dyes.   |
| 2009 | Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) | <1.02            | <1.02            | <1.02            | ppb                | Used in detonators, priimers, mines, rocket boosters, and plastic explosives; used in fireworks and demolition blocks, and as a rodenticide.  |
| 2009 | Trinitrotoluene (TNT)                         | <0.82            | <0.82            | <0.82            | ppb                | Used as an explosive in bombs and grenades, also used as a propellant; small amounts<br>used for industrial explosive applications, such as deep well and underwater blasting:<br>chemical intermediate in manufacture of dvestuffs and photographic chemicals. |

#### LEAD AND COPPER

| Year | Contaminant | The 90th<br>Percentile | Number of Sites<br>Exceeding Action Level | Action<br>Level | Units of<br>Measure | Source of Contaminant   |
|------|-------------|------------------------|---|-----------------|---------------------|---|
| 2007 | Lead        | 2.2                    | 0   | 15              | ppb                 | Corrosion of household plumbing systems; erosion of natural deposits.                                   |
| 2007 | Copper      | 0.089                  | 0   | 1.3             | ppm                 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |

All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are providing this information now as courtesy. "If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested,. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead."

#### TURBIDITY

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

| Year | Contaminant | Highest Single<br>Measurement | Lowest Monthly<br>% of Samples<br>Meeting Limits | Turbidity<br>Limits | Units of<br>Measure | Source of Contaminant |
|------|-------------|-------------------------------|--|---------------------|---------------------|-----------------------|
| 2009 | Turbidity   | 0.20                          | 100.00   | 0.3                 | NTU                 | Soil runoff           |

#### TOTAL ORGANIC CARBON

Total Organic Carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

| Vear                | Year Contaminant                                  |                  | Average Minimum |                    | Unit of                             | Source of Contaminant                |  |  |  |  |
|---------------------|---|------------------|-----------------|--------------------|-------------------------------------|--------------------------------------|--|--|--|--|
| 1 cui               |   |                  | Level           | Level              | Measure                             | Source of Contaminant                |  |  |  |  |
| 2009                | Source Water                                      | 7.67             | 7.1             | 8.7                | ppm                                 | Naturally present in the environment |  |  |  |  |
| 2009                | Drinking Water                                    | 5.31             | 4.9             | 5.7                | ppm                                 | Naturally present in the environment |  |  |  |  |
| 2009                | 2009 Removal Ratio 1.18 1.07 1.37 % removal * N/A |                  |                 |                    |                                     |                                      |  |  |  |  |
| * Removal ration is | s the percent of TOC removed                      | by the treatment | process divideo | d by the percent o | f TOC required by TCEQ to be remove | d.                                   |  |  |  |  |

## CRYPTOSPORIDIUM MONITORING INFORMATION

In 2009, the City of Mineral Wells tested our raw water monthly for Cryptosporidium, a microbial parasite that may be commonly found in surface water. Cryptosporidium may come from animal and human feces in the water shed. The results of our monitoring detected no cryptosporidium present.

TOTAL COLIFORM

REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.

REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## SECONDARY AND OTHER CONSTITUENTS NOT REGULATED

(No associated adverse health effects)

| Year or<br>Range | Constituent                     | Average<br>Level | Minimum<br>Level | Maximum<br>Level | Secondary<br>Limit | Unit of<br>Measure | Source of Constituent  |
|------------------|---------------------------------|------------------|------------------|------------------|--------------------|--------------------|--|
| 2009             | Bicarbonate                     | 110              | 110              | 110              | NA                 | ppm                | Corrosion of carbonate rocks such as limestone.  |
| 2009             | Chloride                        | 37               | 37               | 37               | 300                | ppm                | Abundant naturally occurring element; used in water purification; byproduct of oil field activity. |
| 2006             | Hardness as<br>Ca/Mg            | 173              | 173              | 173              | NA                 | ppm                | Naturally occurring calcium and magnesium  |
| 2009             | рН                              | 7.7              | 7.7              | 7.7              | >7.0               | units              | Measure of corrosivity of water.   |
| 2009             | Sodium                          | 33               | 33               | 33               | NA                 | ppm                | Erosion of natural deposits; byproduct of oil field activity.                                      |
| 2009             | Sulfate                         | 53               | 53               | 53               | 300                | ppm                | Naturally occurring; common industrial byproduct; byproduct of oil field activity.                 |
| 2009             | Total Alkalinity as<br>as CaCO3 | 110              | 110              | 110              | NA                 | ppm                | Naturally occurring soluble mineral salts.   |
| 2009             | Total Dissolved<br>Solids       | 280              | 280              | 280              | 1000               | ppm                | Total dissolved mineral constituents in water.   |